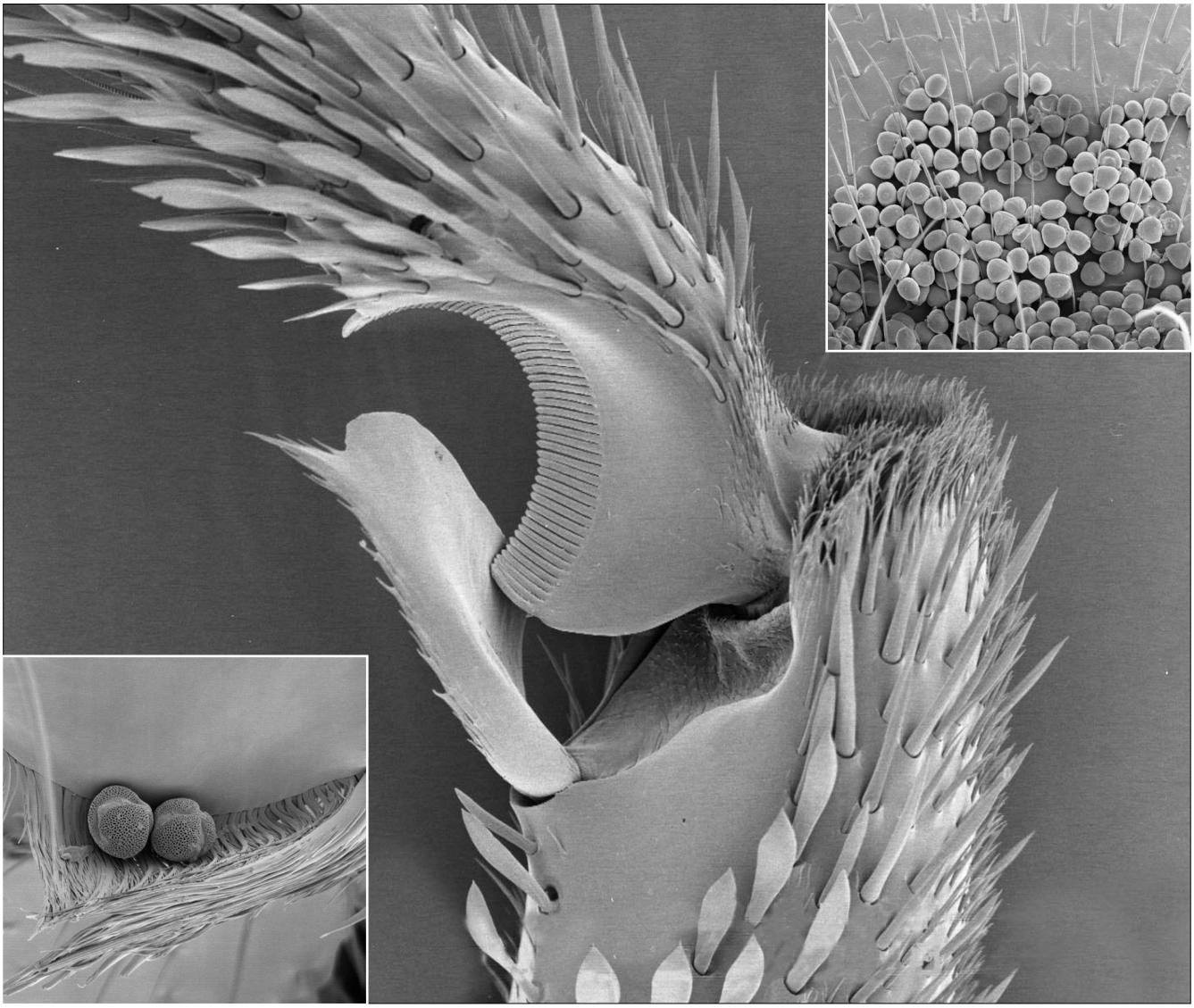
Biology in pictures

Pollen combing



The stingless bee *Trigona carbonaria* is a small, shiny black bee native to Australia. These bees collect pollen and nectar in much the same way as the well-known honey bee *Apis mellifera*, but can be more effective at pollination because as well as crawling over the anthers, they crawl over the style of the flower, delivering pollen to the stigma.

The main scanning electron micrograph above shows the basitarsal comb on the front leg of *T. carbonaria*. The curved comb has a row of 'teeth' made from cuticle and not only looks similar to the sort of comb that we might use for our hair, but also has a similar function, being used to comb pollen from the multitude of hairs that cover the bee. (The image at top right shows pollen grains caught among the hairs on the thorax of another stingless bee, *Austroplebeia australis*.) Pollen is then gathered into a pollen basket (or corbicula), a relatively hairless region surrounded by a fringe of hairs on each hind leg. The image at bottom left shows a pollen basket empty of all but two pollen grains.

For further details, see Heard TA *J Apicult Res* 1994, **33:**191-198. (Images provided by Bronwen Cribb, Centre for Microscopy and Microanalysis, The University of Queensland, Brisbane, 4072, Australia.)